

REMARKS

Claims 5 through 8 are pending in this Application. Claims 1 through 4 have been cancelled and new claims 5 through 8 added. Care has been exercised to avoid the introduction of new matter. Indeed, adequate descriptive support for the present Amendment should be apparent throughout the originally filed disclosure. Specifically, new claim 5 covers the embodiment depicted in Fig. 1, while claim 6, dependent on claim 5, basically corresponds to original claim 2. New claim 7 covers the embodiment depicted in Fig. 9, while claim 8, dependent upon claim 7, basically corresponds to original claim 2. Applicants submit that the present Amendment does not generate any new matter issue.

Objection to the Drawings

The Examiner objected to the drawings pursuant to 37 C.F.R. § 1.83(a) asserting a failure to depict the “first conductive portion having a concave portion connecting to said hole, and said one electrode formed along an inner wall surface of said concave portion” recited in claim 4. This objection is traversed.

Initially, Applicants note that claim 4 has been cancelled, thereby rendering the drawing objection moot. Nevertheless, Applicants do traverse the Examiner’s determination because Figs. 10 and 11 are cross-sectional views showing successive steps of a method of manufacturing the structure depicted in Fig. 9. Adverting to Figs. 10 and 11, reference character 13a denotes a concave portion 13a which is a **hollow portion formed inside of conductive layer 13**. One electrode 19a of a capacitor is formed along this concave portion 13a. It should, therefore, be apparent, and would be recognized by one having ordinary skill in the art from Figs. 10 and 11, that reference numeral 13a in Fig. 9 denotes concave portion 13a, which is a hollow portion

formed inside of conductive layer 13. Accordingly, the “first conductive portion (13) having a concave portion (13a) ...” recited in original claim 4 is clearly illustrated in the drawings.

Moreover, concave portion (13a) is a hollow portion formed inside of conductive layer 13 as previously discussed, and is not an innermost element of the capacitor element. Therefore, as one electrode (19a) can be formed along the concave portion (13a), the element of claim 4 is clearly shown in the drawings.

Based upon the foregoing Applicants solicit withdrawal of the drawing objection.

Claim 4 was rejected under the second paragraph of 35 U.S.C. § 112 as indefinite.

In the statement of rejection the Examiner asserted that the electrode cannot be formed along the concave portion because the concave portion would be the innermost element of the capacitor structure. This rejection is traversed.

Firstly, claim 4 has been cancelled. Moreover, Applicants disagree that original claim 4 or present claim 7 runs afoul of the second paragraph of 35 U.S.C. § 112 for reasons previously mentioned. Specifically, concave portion 13a is a hollow portion formed inside of conductive layer 13, as previously discussed with respect to claims 9, 10 and 11. Accordingly, concave portion 13a is a hollow portion formed inside of conductive layer 13 and is **not**, repeat **not**, an innermost element of a capacitor element.

Based upon the foregoing Applicants submit that one having ordinary skill in the art would have no difficulty understanding the scope of original claim 1 when reasonably interpreted in light of and consistent with the written description of the specification, which is the judicial standard. *Miles Laboratories, Inc. v. Shandon, Inc.*, 997 F.2d 870, 27 USPQ2d 1123 (Fed. Cir. 1993). Applicants, therefore, submit that the imposed rejection of original claim 4

under the second paragraph of 35 U.S.C. § 112 is not legally viable and, hence, solicit withdrawal thereof.

Claims 1 through 3 were rejected under 35 U.S.C. § 102 for lack of novelty as evidenced by Jeng.

Claims 1, 2 and 4 were rejected under 35 U.S.C. § 102 for lack of novelty as evidenced by Kim et al.

Each of the above rejections under 35 U.S.C. § 102 is traversed. Indeed, each of the above rejections under 35 U.S.C. § 102 has been rendered moot by canceling claims 1 through 4.

New claims 5 through 8.

New claims 5 through 8 are clearly free of the previously applied references, *i.e.*, Jeng and Kim et al. Specifically, claims 5 and 6 cover the embodiment illustrated in Fig. 1b. Adverting to Fig. 6L of Jeng, a tungsten plug 40 may be considered to correspond to the first conductive layer, one of two layers of lower electrode 60 formed by PVD, which does **not** have a roughened surface, may be said to correspond to the second conductive layer, and one of two layers of lower electrode 60 formed by CVD, which has a roughened surface, may be said to correspond to the one electrode of the capacitor. As a layer corresponding to the second conductive layer is **formed along the entire inner wall surface of a hole**, Jeng does **not**, repeat **not**, disclose or suggest a structure wherein the second conductive layer is **located only on a bottom portion of the hole as in the claimed invention**. Therefore, Jeng does not disclose the structure defined in independent claim 5.

Similarly Kim neither discloses nor suggests the structure defined in independent claim 1. Specifically, the structure disclosed by Kim comprises a first storage node 6 (Fig. 2F), which may be said to correspond to the first conductive layer, and a second storage node 13 which may be said to correspond to the one electrode of the capacitor. However, there is no second conductive layer in the structure disclosed by Kim.

The structure defined in claims 7 and 8 cover the embodiment depicted in Fig. 9 which is neither disclosed nor suggested by either Jeng or Kim. Specifically, advertizing to Fig. 6L of Jeng, a concave portion is **not** formed on tungsten plug 40. Accordingly, Jeng neither discloses nor suggests the structure defined in claim 7.

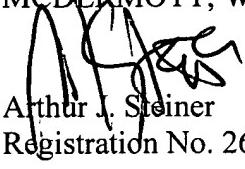
Adverting to Fig. 2F of Kim, first storage node 6 may be said to correspond to the first conductive layer and has a concave shape, while second storage node 13 may be said to correspond to the one electrode of a capacitor. However, second storage node 13 is formed along a **portion of an inner wall surface** of the concave shape of the first storage node 6. Clearly, the second storage node 13 is **not**, repeat **not**, formed along the entire inner wall surface. Accordingly, Kim neither discloses nor suggests the structure defined in independent claim 7.

Based upon the foregoing it should be apparent that the objection and rejections have been overcome and that new claims 5 through 8 are in clear condition for immediate allowance. Favorable consideration is, therefore, respectfully solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

MCDERMOTT, WILL & EMERY


Arthur J. Steiner
Registration No. 26,106

600 13th Street, N.W.
Washington, DC 20005-3096
(202) 756-8000 AJS:bjs/lrd
Facsimile: (202) 756-8087
Date: May 26, 2004